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DEPARTMENT OF THE ARMY
US ARMY COMBAT DEVELOPMENTS COMMAND
Liaison Detachment, HQ USARV
APO San Francisco 96375

CDCCS-LV

10 April 1969

SUBJECT: Trip Report (29-69), Field Artillery Digital Automatic Computer (FADAC), and M548 6-Ton Tracked Cargo Carrier

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1. During the period 29 March and 1 April 1969, LTC Jay C. Webb, USACDC Liaison Officer, II Field Force Vietnam, visited the 23d and 54th Field Artillery Groups, and G4, II Field Force Vietnam Artillery.

2. Purpose. To discuss and determine operational status and problem areas of Field Artillery Digital Automatic Computer (FADAC), and M548 6-Ton Tracked Cargo Carrier.

3. Persons contacted were.

LTC James McArthur	-	G4, II Field Force Vietnam Artillery
LTC Leo S. Gomish	-	XO, 23d Field Artillery Group
MAJ Forbes	-	S3, 54th Field Artillery Group
MAJ Guest	-	S4, 54th Field Artillery Group
CPT Cooke	-	Asst S3, 54th Field Artillery Group
CPT Hunt	-	CO, Svc Btry, 6th Bn, 27th Artillery

4. Field Artillery Digital Automatic Computer (FADAC).

a. Comments by 23d Field Artillery Group: All firing batteries and battalion headquarters in the 23d Field Artillery Group have and are using FADAC to compute firing data. The 23d Field Artillery Group feels that FADAC is essential to efficient artillery support in Vietnam. The heavy requirement to be prepared to fire throughout 360 degrees and the acceptance of fire requests outside traverse limits, as a common practice, make FADAC all important. Eight metros are obtained, one for each traverse limit, and its application into the computer assures accurate, fast fires when required to shift outside traverse limits. There are 25 FADACs in the 23d Field Artillery Group, all of which are operational. Two generators are normally employed with each computer. The group has 45 generators, 43 of these are operational. The two deadlined generators are down for a voltage regulator and governor. The major problems with FADAC has been the generators. General consensus is that the commercial generators are not rugged enough for combat operations. Constant attention is required to keep them running. The basic need expressed throughout was - "give us a military designed generators."

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b. Comments by 54th Field Artillery Group: The 54th Field Artillery Group utilizes PADAC in all battalion and firing battery fire direction centers. The battalion and each firing battery has one PADAC and two PADAC generators. Firing data computation are made at battery level with the battalion PADAC system used as a replacement for faulty PADAC systems in the batteries. The 54th Field Artillery Group has had, and is continuing to have considerable problems with both the computers and generators. (See Incl #1). A civilian contact team is scheduled to visit the group on 2 April 1969, to assist in PADAC maintenance problems.

5. M548 6-Ton Tracked Cargo Carrier.

a. Comments by 23d Field Artillery Group: This vehicle has not been favorably received in the 23d Field Artillery Group. Typical comments received were that the M548 is one continuous maintenance problem. Many of the respondents stated they would prefer to retain 5-ton trucks. Units have had trouble primarily with transmissions, transfer gearcases and engines. An example of problems can best be noted by the CCIL report of the 6th Battalion, 27th Artillery. (See Incl #2). This report reflects over 11,000 deadline hours for eleven M548s during a 180 day period. The 23d Field Artillery Group is authorized 42 M548 carriers and currently have 33 on hand. No effort is being made to obtain the nine additional carriers. Of the 33 carriers on hand in the group, eight are deadlined. Four of these are down for engines, two for sprockets, and the other two for engine oil hoses. It was pointed out that more of the carriers would be deadlined if the vehicle were used to any large extent. The Group's policy is to use the vehicles as little as possible and than only within the confines of the battalion areas. The 548 carriers are seldom used on convoys because of problems encountered when they break-down - this being a common occurrence.

b. Comments by 54th Field Artillery Group: The 54th Field Artillery Group is authorized 30 M548 Tracked Cargo Carriers and has 27 on hand. Of the 27 on hand 24 are operational. This deadline rate is due primarily to non-availability of spare parts. The major deficiency in the M548 reportedly is with the transfer gearcase. The transfer gearcase apparently is not as strong as it needs to be for the rated load of the vehicle. Non-availability of spare parts plus the need to improve on the transfer gearcase is their main objection to this vehicle.

c. Comments by G4, II Field Force Vietnam Artillery: The 23d Field Artillery Group submitted a request to II Field Force Vietnam Artillery to have the MTOE changed to authorize 5-ton vehicles in lieu of the M548. This request was denied by II Field Force Vietnam Artillery. Denial was primarily due to a conflict between the two groups; the 54th Field Artillery

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Group wanted to retain the M548. The best explanation for differences in opinion of the M548 is the usage factor and distances of movement between the two units. The 54th Field Artillery Group Self-Propelled Batteries primarily have been in static positions whereas Self-Propelled Batteries in the 23d Field Artillery Group move often. It is a consensus of the respondents that the M548 is not a road vehicle. Transfer gearcases and transmissions tend to break-down when used in convoys.

6. Previous maintenance reports on the M548, forwarded to CDCMR-O validate these comments.

2 Incl
as


ALBERT J. BROWN
COL., GS (Inf)
Senior Liaison Officer

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SUBJECT: PADAC Monthly Statistical Reports, September 68 - February 69,
54th Field Artillery Group, II FFORCEV

September 1968

PADAC COMPUTER AND GENERATORS

<u>UNIT</u>	<u>STATUS</u>
7/8 FA BN	No output, Power and Temp. Light 14 D/L Days PADAC, Deadline Rate 13.3% Generator
7/9 FA BN	Engine and Nixie Light, 12 D/L Days PADAC 0% Generator
2/35 FA BN	Engine and main Circuit Breakers won't Program - 42 D/L Days PADAC, 12.2% Generator
5/42 FA BN	Will not Program and Memory Board Deadline Rate 0% Generator, 60 D/L Days PADAC

October 1968

PADAC COMPUTERS

<u>UNIT</u>	<u>STATUS</u>
7/8 FA BN	Will Not Compute, Nixie Light Deadline Rate 7.5%
7/9 FA BN	Will Not Compute, Nixie Light Deadline Rate 7.5%
5/42 FA BN	Bad Board, Will Not Compute Deadline Rate 23%
2/35 FA BN	Will Not Compute, Circuit Breaker Deadline Rate 25.6%

PADAC GENERATORS

<u>UNIT</u>	<u>STATUS</u>
5/42 FA BN	Engine, No Output, 25 D/L Days

SUBJECT: FADAC Monthly Statistical Reports, September 68 - February 69,
54th Field Artillery Group, II FFORCEV

7/9 FA BN	Engine, No Output, 30 D/L Days
2/35 FA BN	Engine, No Output, 31 D/L Days
7/8 FA BN	Engine, No Output, Generator Shortages, 124 D/L Days

November 1968

FADAC COMPUTERS

<u>UNIT</u>	<u>STATUS</u>
7/9 FA BN	Memory Board and Power Switch D/L Rate 22%
5/42 FA BN	Defective Board and Will Not Compute, D/L Rate 52%
2/35 FA BN	Will Not Compute and Memory Board D/L Rate 2.7%
7/8 FA BN	No Generator, D/L 5%

FADAC GENERATORS

<u>UNIT</u>	<u>STATUS</u>
5/42 FA BN	Voltmeter and Voltage Regulator 16 D/L Days
7/8 FA BN	Low Voltage and No Power, 30 D/L Days
2/35 FA BN	Low Voltage and Engine inoperable 37 D/L Days
7/9 FA BN	Low Voltage and Engine inoperable 45 D/L Days

DECEMBER 1968

FADAC COMPUTERS

<u>UNIT</u>	<u>STATUS</u>
7/8 FA BN	No Down Time
2/35 FA BN	No Down Time

SUBJECT: FADAC Monthly Statistical Reports, September 68 - February 69,
54th Field Artillery Group, II FFORCEV

7/9 FA BN	Defective Memory Board, D/L Rate 25%
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5/42 FA BN	Defective Memory Board, Will Not Compute, D/L Rate 33%
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FADAC GENERATORS

<u>UNIT</u>	<u>STATUS</u>
5/42 FA BN	Adjust Voltage, 31 D/L Days
7/8 FA BN	No Out-Put, 31 D/L Days
7/9 FA BN	No Out-Put and Engine, 62 D/L Days
2/35 FA BN	Engine and Fuel Pump, 62 D/L Days

January 1969

FADAC COMPUTERS

<u>UNIT</u>	<u>STATUS</u>
7/8 FA BN	No D/L Days
2/35 FA BN	No D/L Days
7/9 FA BN	Defective Memory Board, Will Not Compute, Deadline Rate 15%
5/42 FA BN	Defective Memory Board, Will Not Compute, Deadline Rate 22%

FADAC GENERATORS

<u>UNIT</u>	<u>STATUS</u>
7/8 FA BN	No Out-Put, 2 D/L Days
5/42 FA BN	Engine and Low Voltage, 2 D/L Days
7/9 FA BN	Govenor and Low Voltage, 4 D/L Days
2/35 FA BN	Engine and Low Voltage, 16 D/L Days

SUBJECT: PADAC Monthly Statistical Reports, September 68 - February 69,
54th Field Artillery Group, II FFORCEV

February 1969

PADAC COMPUTERS

<u>UNIT</u>	<u>STATUS</u>
7/8 FA BN	No Dead Line Days
2/35 FA BN	Would not Compute, Dead Line Rate 14%
7/9 FA BN	Key Board, Dead Line Rate 22%
5/42 FA BN	Would not Compute, Dead Line Rate 29%

PADAC GENERATORS

7/8 FA BN	No Dead Line Days
7/9 FA BN	No Dead Line Days
5/42 FA BN	Engine, 21 Dead Line Days
2/35 FA BN	Engine, Low Voltage, 85 D/L Days

DEPARTMENT OF THE ARMY
HEADQUARTERS, 6TH BATTALION 27TH ARTILLERY
APO San Francisco 96190

AVGE-Y

23 November 1968

SUBJECT: Commanders Critical Items List

Commanding Officer
23d Artillery Group
APO SF 96239

The following report is submitted in accordance with message
AVGE-D-10-1, your headquarters, Subject: Commanders Critical Items List:

a. M548 Cargo Carrier. This battalion has continued to experience difficulty in obtaining parts for, and maintaining the M548 Cargo Carrier. Extensive man hours have been spent by unit personnel repairing these vehicles, and by battalion maintenance and staff personnel coordinating to obtain and transport the repair parts. Since this is a critical vehicle, it has been necessary to place it high on the maintenance priority list. The many man hours involved in maintenance for this vehicle has caused a degradation of this unit's overall maintenance program. The following are lists of; deadline time for the past 180 days, by battery and JCA number, and major items causing deadline:

(1) Deadline Time

<u>BATTERY</u>	<u>JCA NUMBER</u>	<u>HOURS DEADLINE</u>
A	120271	1,892
A	120272	188
A	120115	381
A	120243	1,272
B	120232	288
B	120113	392
B	120K93	365
C	120285	1,920
C	120291	2,760
C	120283	1,550
C	120799	21
		<u>11,065</u>

(2) Major Components Causing Deadline

(a) Starter

(b) Seal - Part Number 161139132

Incl #2


AVOE-Y

SUBJECT: Commanders Critical Items List (con't)

- (c) V Belt - ISN 3030-675-1894
- (d) M50 Injectors
- (e) Headgaskets and Head Assembly
- (f) Transmission
- (g) Final Drive Assembly
- (h) Batteries - ISN 6110-057-2551
- (i) Engine

(3). Currently, Battery C of this battalion has an M548 which has been deadlined since 19 September 1968 for engine malfunction. The unit and support maintenance initially tried to repair the engine by replacing minor components. The engine could not be repaired and on 20 October 1968 a Red Ball requisition (RB8283-001) was submitted by the 3d Maintenance Company, Di An. A telephonic check on the status of the requisition was made on 2 November 1968 which revealed that there were several M548 engines due-out but there were none available. At this time a new Red Ball requisition (RB9302-6300) was submitted by the 610th Maintenance Battalion, Phu Loi. On 16 November 1968, 610th Maintenance Battalion was contacted and status on the requisition had not yet been received. It was indicated that engines were available at Saigon Support Command, and on 23 November 1968 610th Battalion notified this headquarters that a due-out had been received. Similar problems were encountered in obtaining repair parts for previously deadlined M548 Cargo Carriers.

b. Batteries - ISN 6110-057-2551 and ISN 6110-057-2552. These batteries have been extremely difficult to obtain through the direct exchange system. There are presently 16 batteries turned into support direct exchange by units of this battalion for which no replacements are available.


RICHARD S. BLACK
LTC, Artillery
Commanding